QUALITATIVE RESEARCH JOURNAL FOR SOCIAL STUDIES
ISSN Online: 3006-4686, ISSN Print: 3006-4678
Volume No: 02 Issue No: 03 (2025)

BEHAVIORAL INTENTION TO USE SMARTPHONES AND INTERACTION COMPETENCY: DETERMINANTS OF STUDENT ACADEMIC SUCCESS

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Abstract

This study investigated the effects of interaction competency and behavioral intention to use smartphones on academic performance among students. A quantitative correlational research design was employed with a sample of 103 participants selected through purposive sampling. Standardized instruments were used to assess interaction competency, behavioral intention to use smartphones, and academic performance. Data were analyzed using descriptive statistics, correlation, and regression analyses. Results revealed that both interaction competency and behavioral intention to use smartphones were significant positive predictors of academic performance. Interaction competency explained 9.3% of the variance in academic outcomes, while behavioral intention to use smartphones accounted for 24.3%, emerging as the stronger predictor. These findings suggest that while communication and interpersonal skills remain important for student achievement, purposeful smartphone use plays a more decisive role in enhancing academic success. The study highlights the dual importance of developing students' interaction skills and fostering intentional technology use in educational contexts. Implications for educators include integrating communication training and structured mobile learning strategies into teaching practices. Future research should explore additional mediating or moderating factors to better understand the dynamics between social competencies, technology use, and academic performance.

Keywords: *interaction competency, behavioral intention, smartphone use, academic performance, students*

Introduction

Academic performance remains one of the central concerns in educational research, as it reflects not only students' mastery of knowledge but also their ability to apply skills and competencies in real learning environments. Numerous factors, both personal and contextual, influence how well students perform. Among these, interaction competency and behavioral intention to use technology, particularly smartphones, are increasingly being recognized as critical predictors of success in contemporary educational settings (Breso et al., 2007; Han & Jeong, 2018).

Interaction competency refers to the ability of students to communicate, collaborate, and engage effectively with peers, teachers, and learning materials. It encompasses verbal and non-verbal communication skills, the capacity to build relationships, and the ability to actively participate in discussions and group activities. Research suggests that students with strong interaction competency are better able to articulate ideas, seek clarification, and learn through collaboration, which in turn enhances academic achievement (Han & Jeong, 2010). Moreover, classroom interaction is not only about exchanging information but also about fostering motivation,

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confidence, and self-efficacy—factors that are strongly associated with higher levels of performance (Roorda et al., 2011).

In addition, interaction competency supports deeper engagement with learning tasks. Breso et al. (2007) noted that when students are skilled in communication and social interaction, they tend to develop stronger study habits and coping strategies, which ultimately improve academic outcomes. Conversely, limited interaction skills can isolate students, reduce participation, and negatively affect their grades. Therefore, examining the role of interaction competency in predicting academic performance remains highly relevant.

Parallel to interpersonal skills, the rapid integration of technology into education has transformed how students learn, communicate, and perform academically. Smartphones, in particular, have become ubiquitous tools that serve not only for communication but also for accessing information, online learning resources, and collaborative platforms. Behavioral intention to use smartphones for academic purposes—defined as the conscious decision and motivation to utilize mobile technology for learning-related activities—has been shown to significantly influence educational outcomes (Han & Jeong, 2018).

When students intentionally use smartphones for academic tasks, such as searching for scholarly content, engaging with digital classrooms, or coordinating group projects, they are more likely to experience improved efficiency and enhanced learning outcomes (Al-Emran, 2019). Meta-analyses of mobile learning interventions suggest that purposeful smartphone use has a positive effect on both learning engagement and performance (Sung, Chang, & Liu, 2016). However, the impact of smartphone use is not uniform. While productive, academic-focused use can facilitate performance, non-academic or entertainment-driven use can lead to distraction, reduced concentration, and even academic decline (Lepp, Barkley, & Karpinski, 2015). Thus, understanding behavioral intention is crucial, as it distinguishes between purposeful, goal-oriented use and unproductive, distracting use.

Although interpersonal skills and technology use are often studied separately, their combined influence may provide deeper insights into academic achievement. In modern classrooms, effective interaction competency is frequently mediated through digital platforms, particularly in blended or online learning contexts. Students who possess strong communication skills are more likely to leverage smartphones constructively for collaborative purposes, thereby improving their academic outcomes (Han & Jeong, 2018). Furthermore, both constructs reflect broader 21st-century skills—communication, collaboration, and digital literacy—that are increasingly emphasized in educational policy and practice (Trilling & Fadel, 2009). Recent studies also investigated peer tutoring and PQ4R strategies enhances academic success and performance among students (Batool et al., 2022; Batool et al., 2024).

While previous studies have highlighted the positive role of interaction competency and the purposeful use of smartphones in education, limited research has examined their predictive effects on academic performance within the same study, particularly in developing contexts. Moreover, most studies have either focused on technology adoption models or interpersonal communication, without integrating the two in relation to student achievement. Addressing this gap is important for providing educators with holistic strategies that combine both social and technological dimensions of learning.

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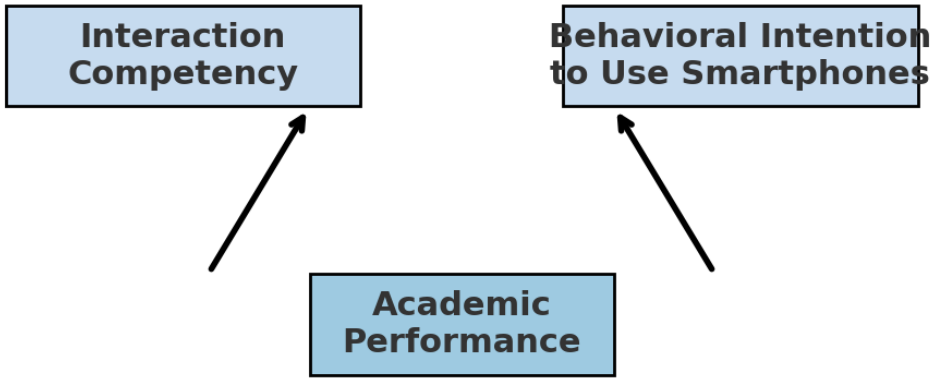
Objectives of the Study

Based on the above background, the present study was designed with the following objectives:

1. To examine the effect of interaction competency on academic performance among students.
2. To investigate the impact of behavioral intention to use smartphones on academic performance.
3. To compare the relative strength of interaction competency and behavioral intention to use smartphones as predictors of academic success.

Conceptual Framework

The conceptual framework illustrated the hypothesized relationships among the study variables. Interaction Competency and Behavioral Intention to Use Smartphones are proposed as predictors, while Academic Performance is the outcome variable



Method

Research Design

This study employed a quantitative, survey-based design to investigate the effect of interaction competency, smartphone self-efficacy, and behavioral intention to use smartphones on students' academic performance. A regression analysis was conducted to test the proposed relationships.

Participants

The study sample consisted of university/college students (N=103).Participants were selected through convenience sampling. Both male and female students from different academic levels voluntarily participated.

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Instruments

A structured questionnaire comprising 20 items was used to collect data. All items were measured on a five-point Likert scale ranging from *1 = Strongly Disagree* to *5 = Strongly Agree*. The items were adapted from previously validated instruments:

1. ***Interaction Competency***

It measured through items adapted from prior research on communication and interaction skills in academic contexts (Han & Jeong, 2018).

2. ***Smartphone Self-Efficacy***

It assessed with items reflecting confidence in effectively using smartphones for learning purposes (Compeau & Higgins, 1995; Han, 2010).

3. ***Behavioral Intention to Use Smartphones***

This scale measured using items based on the Technology Acceptance Model (Davis, 1989; Venkatesh et al., 2003).

4. ***Academic Performance***

A self-reported through items reflecting students' perceived learning outcomes and academic achievements (Breso, Schaufeli, & Salanova, 2007).

Ethical Considerations

Ethical standards of research were strictly followed. Participation was voluntary, and informed consent was obtained from all respondents. Responses were kept confidential, and anonymity was maintained. Participants were assured that their information would be used solely for academic purposes.

Results

Table 1

Demographic Variables of participants

Variables	Demographic Items	Frequency	Percentage
Age	Age 25–35	32	31.1
	Age 36–45	41	39.8
	Age 46 and above	30	29.1
Gender	Male	41	39.8
	Female	62	60.2
Organization	Public Institution	54	52.4
	Private Institution	49	47.6
Profession	Student	89	86.4
	Self-employed	14	13.6

Table 2

Regression Analysis Predicting Academic Performance from Interaction Competency

Predictor	**B**	**SE**	**β**	**t**	**P**
Constant	1.96	0.48	–	4.05	.000

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Predictor	B	SE	β	t	P
Interaction Competency	0.39	0.12	.305	3.20	.002

Note. $R^2 = .093$, Adjusted $R^2 = .084$, $F(1, 298) = 10.27$, $p < .001$.

A simple linear regression was conducted to test the effect of interaction competency on academic performance. The overall model was statistically significant, $F(1, 298) = 10.27$, $p < .001$, explaining 9.3% of the variance, $R^2 = .093$, Adjusted $R^2 = .084$. Results indicated that interaction competency was a significant positive predictor of academic performance, $\beta = .305$, $t(298) = 3.20$, $p = .002$. This finding suggests that students with higher interaction competency report better academic performance

Table 3

Regression Analysis Predicting Academic Performance from Behavioral Intention to Use Smartphones

Predictor	B	SE	β	t	p
Constant	1.27	0.40	–	3.18	.002
Behavioral Intention (Smartphone)	0.60	0.11	.493	5.67	.000

Note. $R^2 = .243$, Adjusted $R^2 = .236$, $F(1, 298) = 32.20$, $p < .001$.

A second regression analysis examined the relationship between behavioral intention to use smartphones and academic performance. The model was statistically significant, $F(1, 298) = 32.20$, $p < .001$, accounting for 24.3% of the variance, $R^2 = .243$, Adjusted $R^2 = .236$. Behavioral intention to use smartphones was a strong positive predictor of academic performance, $\beta = .493$, $t(298) = 5.67$, $p < .001$. These findings indicate that students with stronger intentions to use smartphones for academic purposes tend to perform better academically

Discussion

The present study examined the influence of interaction competency and behavioral intention to use smartphones on academic performance. The findings revealed that both factors significantly contributed to students' academic success, though behavioral intention to use smartphones demonstrated a stronger predictive effect compared to interaction competency. These results suggest that while strong interpersonal and communication skills remain essential for effective learning and collaboration, the way students integrate technology into their academic activities plays a more decisive role in shaping their performance outcomes. This aligns with earlier research emphasizing that purposeful and goal-directed use of digital tools enhances academic engagement and achievement (Han & Jeong, 2018). The positive association between interaction competency and academic performance is consistent with studies showing that communication and collaborative skills foster better classroom participation, problem-solving, and learning outcomes (Breso et al., 2007). At the same time, the strong effect of behavioral intention toward smartphone use underscores the growing role of technology in education. When used intentionally for learning, smartphones provide access to resources, facilitate quick communication, and support self-directed learning, thereby improving performance.

However, while smartphones appear beneficial when used for academic purposes, future research should also consider potential negative effects such as distraction, overuse, or

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multitasking, which may undermine performance in some contexts. Additionally, the relatively low variance explained by interaction competency suggests that other psychological, social, or contextual factors may moderate or mediate the relationship with academic performance.

Conclusion

In conclusion, both interaction competency and behavioral intention to use smartphones significantly influence academic performance, with the latter exerting a stronger impact. These findings highlight the dual importance of interpersonal communication skills and intentional technology use in supporting student achievement. The study contributes to the growing literature on predictors of academic success and provides implications for educators to encourage both effective communication and purposeful integration of digital tools in learning environments. Future studies should explore longitudinal effects and investigate additional variables that may further explain the dynamics of student performance.

Practical Implications

Educational programs should integrate training to enhance students' interaction competencies, as these skills support collaboration, critical thinking, and academic success. Technology policies in education should encourage the constructive use of smartphones by promoting digital literacy and responsible usage. Teachers and institutions may consider incorporating smartphones into classroom activities, aligning students' behavioral intentions with academic goals.

Limitations and Recommendations

Although the study provides meaningful insights, several limitations must be noted. First, the data were collected using self-reported questionnaires, which may introduce bias. Second, the sample was limited to a specific group of students, restricting generalizability. Third, the study focused only on two predictors; other factors such as motivation, study habits, or family support may also influence academic performance.

Future research should employ larger and more diverse samples, include longitudinal designs to capture causal relationships, and integrate qualitative methods to explore students' experiences in greater depth. Additionally, examining the dual role of smartphones—academic support versus distraction—could provide a more nuanced understanding.

References

Al-Emran, M. (2019). Mobile learning in the Middle East: Students' perspectives. *International Journal of Interactive Mobile Technologies, 13*(11), 82–96. https://doi.org/10.3991/ijim.v13i11.10895

Batool, A., Zahra, G. E., Rehan, M., & Ahmed, I. (2021). Effectiveness of peer tutoring on the mathematics performance of slow learners. *Turkish Online Journal of Qualitative Inquiry, 12*(10).

Batool, A., Sultan, S., & Shafiq, M. (2024). Analyzing the effect of PQ4R learning intervention on learning outcomes and retention of slow learner students across the reading phase. *Journal of Excellence in Social Sciences, 3*(3), 61–70.

Breso, E., Schaufeli, W. B., & Salanova, M. (2007). Self-efficacy development and the prediction of academic performance and burnout. *Anxiety, Stress, & Coping, 20*(2), 111–125. https://doi.org/10.1080/10615800701217804

Han, J., & Jeong, E. (2010). The effects of communication competence on students' academic achievement. *Journal of Communication Research, 47*(3), 25–52.

Han, J., & Jeong, E. (2018). The effects of smartphone use on learning motivation and achievement. *Journal of Educational Technology, 34*(2), 1–20.

Lepp, A., Barkley, J. E., & Karpinski, A. C. (2015). The relationship between cell phone use, academic performance, anxiety, and satisfaction with life in college students. *Computers in Human Behavior, 31*, 343–350. https://doi.org/10.1016/j.chb.2013.10.049

Roorda, D. L., Koomen, H. M. Y., Spilt, J. L., & Oort, F. J. (2011). The influence of affective teacher–student relationships on students' school engagement and achievement: A meta-analytic approach. *Review of Educational Research, 81*(4), 493–529. https://doi.org/10.3102/0034654311421793

Sung, Y. T., Chang, K. E., & Liu, T. C. (2016). The effects of integrating mobile devices with teaching and learning on students' learning performance: A meta-analysis and research synthesis. *Computers & Education, 94*, 252–275. https://doi.org/10.1016/j.compedu.2015.11.008

Trilling, B., & Fadel, C. (2009). *21st century skills: Learning for life in our times*. Jossey-Bass.